

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF KENTUCKY UTILITIES COMPANY AND )	
LOUISVILLE GAS AND ELECTRIC COMPANY FOR A )	CASE NO.
CERTIFICATE OF CONVENIENCE AND NECESSITY TO )	2000-112
CONSTRUCT SELECTIVE CATALYTIC REDUCTION )	
(SRC) NOX CONTROL TECHNOLOGIES )	

ORDER

On March 3, 2000, Kentucky Utilities Company and Louisville Gas and Electric Company (“Utilities”) filed an application for a Certificate of Public Convenience and Necessity to construct Selective Catalytic Reduction (“SCR”) NOx control technologies. Kentucky Industrial Utility Customers (“KIUC”) and the Attorney General, by and through his Office of Rate and Intervention (“AG”), filed motions for intervention, which were granted.

The Utilities must reduce their NOx emissions to 0.15 lb/mmBTU by May 1, 2003 to meet Environmental Protection Agency (“EPA”) regulations. The Utilities propose to construct SCRs at the following generating plants: Trimble County 1, Mill Creek 3, Mill Creek 4, Ghent 3, Ghent 4, Ghent 1, and Brown 3. The total estimated capital cost for the SCR installation is \$309.2 million. The Utilities indicate that the SCR construction timeframe for each unit is approximately 12 to 16 months; therefore, construction on the first SCR at Trimble County 1 should begin by the fall of 2000 in order to complete construction of the seven SCRs by the EPA deadline. The Utilities state that only SCRs necessary to comply with the final NOx emission limits will be installed.

The Utilities retained Sargent & Lundy, a consultant-engineering firm, to perform site-specific technical and economic evaluations of the Utilities' facilities to identify and analyze NOx compliance alternatives. Sargent & Lundy performed several analyses for achieving a NOx emission rate ranging from 0.3 lb/MBtu to 0.10 lb/MBtu. The consultant recommends the installation of SCRs at Ghent 1, Ghent 2, Ghent 3, Ghent 4, Trimble County 1, Mill Creek 3, and Mill Creek 4. The Utilities' proposal in this case differs from the consultant's recommendation in that it deletes an SCR at Ghent 2 and installs an SCR at Brown 3. The Utilities state that the consultant's analysis assumed 85 percent NOx removal efficiency for the SCR compared to the 90 percent NOx removal used in the Utilities' analysis. The change in efficiency from 85 percent to 90 percent was based on information obtained from industry sources involved with the design and construction of SCRs internationally. The Utilities' analysis showed that their recommended plan results in \$15 million in capital cost savings compared to the consultant's recommendation. Neither intervenor objected to the Utilities' proposal to construct the proposed seven SCRs.

After consideration of the evidence of record and being otherwise sufficiently advised, the Commission finds that the proposed construction of seven SCRs is needed to reduce NOx emissions to 0.15 lb/Mbtu level by May 1, 2003. The proposed construction is reasonable, cost effective, and will not result in the wasteful duplication of facilities.

IT IS THEREFORE ORDERED that the Utilities are granted a Certificate of Public Convenience and Necessity to construct SCRs at Trimble County 1, Mill Creek 3,

Mill Creek 4, Ghent 3, Ghent 4, Ghent 1, and Brown 3, as needed to comply with EPA requirements.

Done at Frankfort, Kentucky, this 22<sup>nd</sup> day of June, 2000.

By the Commission

ATTEST:

  
Executive Director